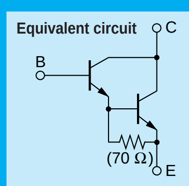
Darlington 2SD2560

Equivalent circuit



Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SB1647)

Application : Audio, Series Regulator and General Purpose

Absolute maximum ratings (Ta=25°C)

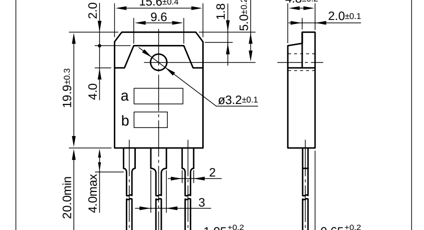
Symbol	2SD2560	Unit
V_{CBO}	150	V
V_{CEO}	150	V
V_{EBO}	5	V
I_C	15	A
I_B	1	A
P_C	130(Tc=25°C)	W
Tj	150	°C
Tstg	–55to+150	°C

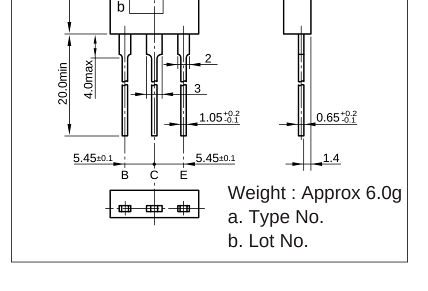
Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SD2560	Unit
I_{CBO}	V_{CB}=150V	100max	µA
I_{EBO}	V_{EB}=5V	100max	µA
$V_{(BR)CEO}$	I_C=30mA	150min	V
h_{FE}	V_{CE}=4V, I_C=10A	5000min∗	
$V_{CE(sat)}$	I_C=10A, I_B=10mA	2.5max	V
$V_{BE(sat)}$	I_C=10A, I_B=10mA	3.0max	V
f_T	V_{CE}=12V, I_E=–2A	70typ	MHz
C_{OB}	V_{CB}=10V, f=1MHz	120typ	pF

∗h_{FE} Rank O(5000 to 12000), P(6500 to 20000), Y(15000 to 30000)

External Dimensions MT-100(TO3P)





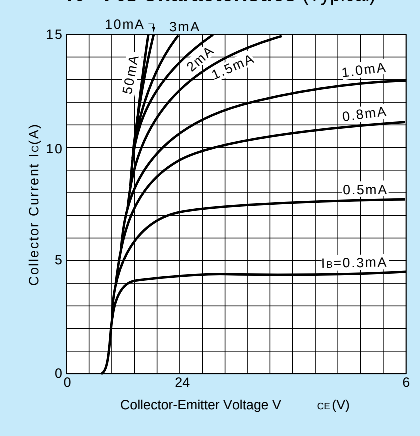
Weight : Approx 6.0g
a. Type No.
b. Lot No.

Typical Switching Characteristics (Common Emitter)

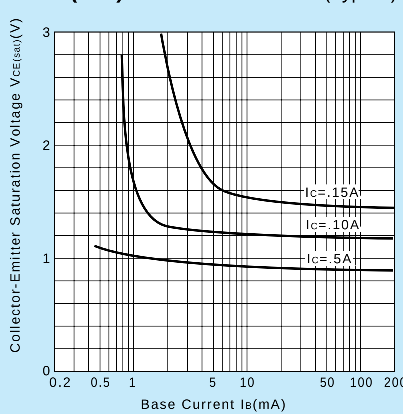
V_{CC} (V)	R_L (Ω)	I_C (A)	V_{BB1} (V)	V_{BB2} (V)	I_{B1} (mA)	I_{B2} (mA)	ton (µs)	tstg (µs)	tf (µs)
40	4	10	10	–5	10	–10	0.8typ	4.0typ	1.2typ



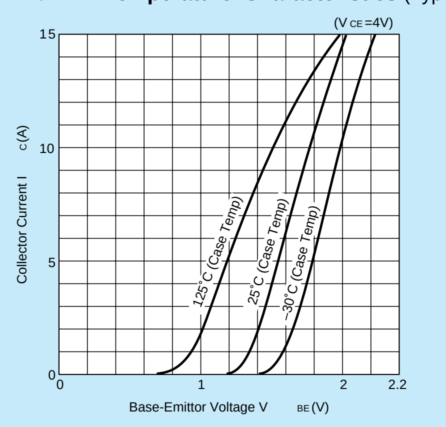
I_C–V_{CE} Characteristics (Typical)



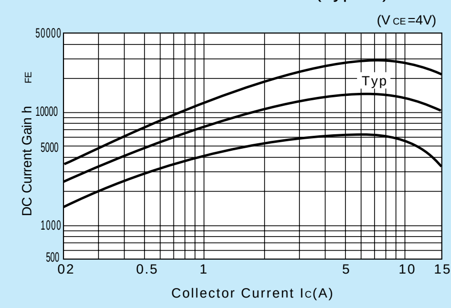
$V_{CE(sat)}$–I_B Characteristics (Typical)



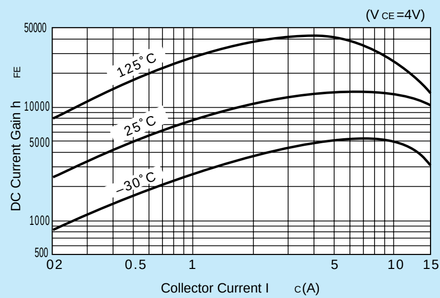
I_C–V_{BE} Temperature Characteristics (Typical)



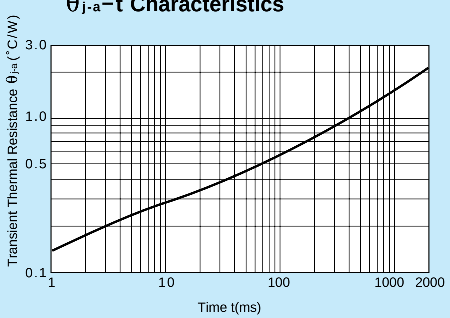
h_{FE}–I_C Characteristics (Typical)



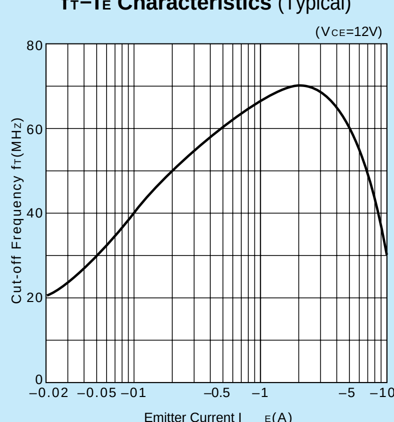
h_{FE}–I_C Temperature Characteristics (Typical)



θ_{j-a}–t Characteristics



f_T–I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)

P_C–Ta Derating

